Battle Creek Restoration Project
Fish Passage Team
(Inskip Diversion and North Battle Creek Feeder)
September 10, 1999 Meeting #3 Notes

Attendees:
Scott Kennedy, DWR-ND
Curtis Anderson, DWR-ND
Kevin Dossey, DWR-ND
Bill McLaughlin, DWR-ND
Don Rasmussen, DWR-DOE
Terry Becker, DWR-DOE
Cosme Diaz, DWR-DOE
Dave Gore, USBR-Sacramento
Cindy Watanabe, CDFG
Jean Oscamou, PG&E
Chip Stalica, PG&E
Ken Leung, PG&E
Jim Smith, FWS
John Johnson, NMFS

Key Points:

INSKIP DIVERSION

- There was discussion about using file transfer protocol to transmit data and documents. The suggested FTP program was a 30-day trial version which presents a problem for some users. Also, some of the downloadable files are quite large. DWR will find a different way for team members to download for free and will try to cut down on file sizes.
- The adjusted fish ladder entrance configuration was presented. The new configuration was acceptable to all present.
- There were comments made about the erodability of the material the ladder will be built on and the strength of the concrete used in the ladder. These issues will be addressed in the final design phase.
- The auxiliary water supply system was discussed. The flexibility of PG&E operation was examined regarding the amount of water that could be supplied to the primary auxiliary water supply pipe during planned outages. PG&E plans the outages one year in advance so the time they occur is fixed. It was stressed, however, that the system must be flexible. It was agreed that the secondary auxiliary water supply pipe would be eliminated from the design.
- The new fish screen configuration was presented. There were questions about the amount of excavation required for a screen in the proposed location and the possibility of a vertical screen face. It may be possible to move the screen slightly to reduce the excavation amount without changing the hydraulics, but due to space and size considerations it is not feasible to construct a screen with a vertical face.

- The issue of the ladder entrance being overtopped during flood events was mentioned. The ladder will be designed to withstand a 100-year event. Ladder integrity during flood events will be addressed in the final design phase.
- The topic of entrance pool maintenance was raised. DWR will investigate the feasibility of making the entrance pool accessible by a backhoe or similar equipment.
- It was suggested that a fish screen bypass could be constructed through the fill area (abandoned canal section) south of the screen. DWR will determine a cost for this configuration.
- Fish monitoring was discussed and the team accepts the area DWR has set aside in the ladder.
- The headworks structure was discussed and team members would not like to see head differences of more than one foot across this structure or between any two fishway pools.
- Because it is difficult to limit head differentials to one foot DWR will provide more flow data (especially for wetter years) so that event magnitude, duration, and frequency can be examined in more detail.

NORTH BATTLE CREEK FEEDER

- A design flow of 1070 cfs was presented to the group. This flow is based on:
  - average daily flows at the Coleman Gage,
  - a 53% flow split to North Fork Battle Creek at Eagle Canyon (from the Eagle Canyon report),
  - and 57% of the flow in Eagle Canyon passing the dam at North Battle Creek Feeder (PG&E estimates and RMI drainage area estimates).
- DWR suggested some possible basic configurations for this site and asked for group input. These ideas included an in-canal fish screen, a step pool ladder on the south bank, or a pool and chute type ladder in the center of the creek. Group members liked the idea of a pool and chute ladder (providing it was compatible with PG&E's diversion) and suggested that an in-stream fish screen upstream of the dam should be investigated.
- The operation of a pool and chute type fish ladder was discussed.

NEXT MEETING

- The next Battle Creek Fish Passage Team meeting is scheduled for November 3, 1999 at 09:30 in the large conference room at DWR's Red Bluff office.